

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-9 are presently pending in this application, Claims 1-7 having been amended and Claims 8 and 9 having been newly added by the present amendment.

In the outstanding Office Action, Claim 1 was rejected under 35 U.S.C. §102(b) as being anticipated by SU 769040 (hereinafter "SU '040"); and Claims 2, 3 and 5 were rejected under 35 U.S.C. §103(a) as being unpatentable over SU '040 in view of Schultz (U.S. Patent 2,514,803). However, Claims 4, 6 and 7 were indicated as including allowable subject matter. Further, the drawings were indicated as accepted during the telephone communication with Examiner Jiang on August 11, 2009.

First, Applicant acknowledges with appreciation the indication that Claims 4, 6 and 7 include allowable subject matter. However, these claims are presently maintained in their respective dependent forms, because Applicant believes that Claim 1 includes allowable subject matter.

The specification has been corrected for informalities.

Claims 1-7 have been amended to clarify the subject matter recited therein, and Claims 8 and 9 have been newly added herein. These amendments and additions in the claims are believed to find support in the specification, claims and/or drawings as originally filed, for example, Figures 6, 7 and 9, and no new matter is believed to be added thereby. Also, the claim amendments to Claims 1-7 are not believed to narrow the scopes of the original claims. If, however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work in a joint effort to derive mutually satisfactory claim language.

Before addressing the rejections based on the cited references, a brief review of Claim 1 is believed to be helpful. Claim 1 is directed to a thermostat device and recites: “a valve housing provided with a cooling water passage that constitutes a cooling water channel of an internal combustion engine; a built-in thermally expansive body that is thermally expanded or contracted by change of temperature of the cooling water; a piston rod that is slid by thermal expansion/contraction of the thermally expansive body; and a valve body which is subjected to opening/closing operation with respect to a valve seat formed within said valve housing by sliding of said piston rod in accordance with change of volume of said thermally expansive body, wherein a valve seat shape further on the downstream side in the direction of flow of the cooling water than the valve seat where said valve body is seated, which is an internal wall face forming the cooling water passage within said valve housing, is formed in a shape such that, in the valve open condition, the cross-sectional area of the passage that is formed between an inlet seal of the valve seat on which said valve body is seated and a top face of the valve body gradually decreases on the cooling water inlet side with reference to the maximum passage cross-sectional area on the upstream side in the direction of flow of the cooling water, and such that the cross-sectional area of the passage at the face perpendicular to the top face gradually increases on the cooling water outlet side so that cooling water flows along the top face of said valve body.”

It is respectfully submitted that neither SU ‘040 nor Schultz teaches or suggests “a valve housing provided with a cooling water passage that constitutes a cooling water channel of an internal combustion engine ...; and a valve body which is subjected to opening/closing operation with respect to a valve seat formed within said valve housing by sliding of said piston rod in accordance with change of volume of said thermally expansive body, wherein a valve seat shape ... which is an internal wall face forming the cooling water passage within said valve housing ... is formed in a shape such that, in the valve open condition, the cross-

sectional area of the passage that is formed between an inlet seal of the valve seat on which said valve body is seated and a top face of the valve body gradually decreases ... with reference to the maximum passage cross-sectional area on the upstream side in the direction of flow of the cooling water ...” as recited in Claim 1.

More specifically, SU ‘040 simply shows an element 2 which appears to engage with an opening and close it and an element 5 which appears to engage with an opening formed in a structure 7 and close it. Nowhere is SU ‘040 believed to disclose or suggest a valve housing and a top face of a valve body which together form a water passage having a cross-section area gradually decreasing toward the downstream from the maximum passage cross-sectional area in the upstream as shown, for example, in Figures 6, 7 and 9 of Applicant’s drawings. Similarly, Schultz shows a flange 22 of a damper 21 fitting into an annular flange 20 and does not disclose or suggest a valve housing and a top face of a valve body as recited in Claim 1. Therefore, it is respectfully submitted that the structure recited in Claim 1 is clearly distinguishable from both SU ‘040 and Schultz, and because SU ‘040 and Schultz does not disclose the valve housing and valve body structure as recited in Claim 1, their teachings even combined would not render the thermostat device structure recited in Claim 1 obvious.

Likewise, Claims 8 and 9 recites “a valve housing having a cooling water passage of an internal combustion engine and a valve seat formed in the cooling water passage, the valve seat having an inlet seal ...; and a valve body configured to open and close the cooling water passage by moving with respect to the valve seat of said valve housing when said piston rod slides in accordance with change of the volume of said thermally expansive body, the valve body being configured to seat on the inlet seal of the valve seat, wherein said valve housing has an internal wall face forming a portion of the cooling water passage further on a downstream side of the valve seat, and the internal wall face is configured such that in a valve

open condition, the inlet seal of the valve seat and a top face of the valve body form a cross-sectional area of the portion of the cooling water passage which gradually decreases from a maximum passage cross-sectional area on an upstream side of the valve seat and that a face perpendicular to the top face of the valve body forms a cross-sectional area of the portion of the cooling water passage which gradually increases” and “a valve housing having a cooling water passage of an internal combustion engine and a valve seat formed in the cooling water passage, the valve seat having an inlet seal ...; and a valve body configured to open and close the cooling water passage by moving with respect to the valve seat of said valve housing when said piston rod slides in accordance with change of the volume of said thermally expansive body, the valve body being configured to seat on the inlet seal of the valve seat, wherein said valve housing has an internal wall face forming a portion of the cooling water passage further on a downstream side of the valve seat, and the internal wall face is configured such that in a valve open condition, the inlet seal of the valve seat and a top face of the valve body form a cross-sectional area of the portion of the cooling water passage which gradually decreases from a maximum passage cross-sectional area on an upstream side of the valve seat,” respectively. Thus, the structures recited in Claims 8 and 9 are also distinguishable from SU ‘040 and Schultz.

For the foregoing reasons, Claims 1, 8 and 9 are believed to be allowable. Furthermore, since Claims 2-7 depend directly or indirectly from Claim 1, substantially the same arguments set forth above also apply to these dependent claims. Hence, Claims 2-7 are believed to be allowable as well.

In light of the discussions and in view of the amendments presented above, the present application is believed to be in condition for allowance, and an early action favorable action to that effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, L.L.P.

A handwritten signature in black ink, appearing to read 'Akihiro Yamazaki', is written over a horizontal line.

Akihiro Yamazaki
Attorney of Record
Registration No. 46,155

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 07/09)